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(54) Dispensing container

(57) A liquid-dispensing container, preferably a moulded resiliently deformable plastics bottle, has a duct (2) through which liquid can be expressed from and sucked back into the container, by changing the effective volume of the container such as by squeezing and releasing the bottle, and a cup (4) moulded on the bottle, in which the duct terminates by a mouth at a level, below the rim of the cup, which determines the measure of liquid dispensed. By squeezing the bottle liquid is expressed into the cup until the mouth of the duct is immersed. On release, recovery of the bottle sucks back liquid from the cup down to the level of the duct mouth.

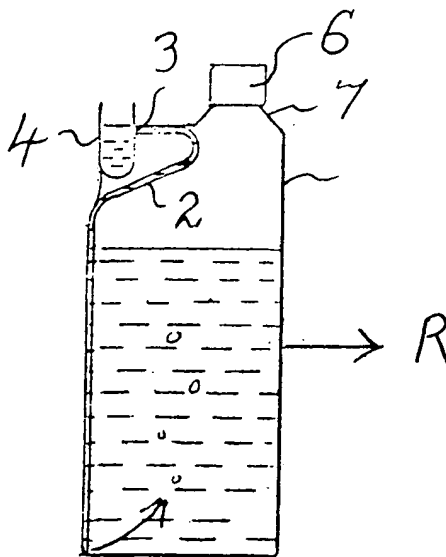


Fig. 2.

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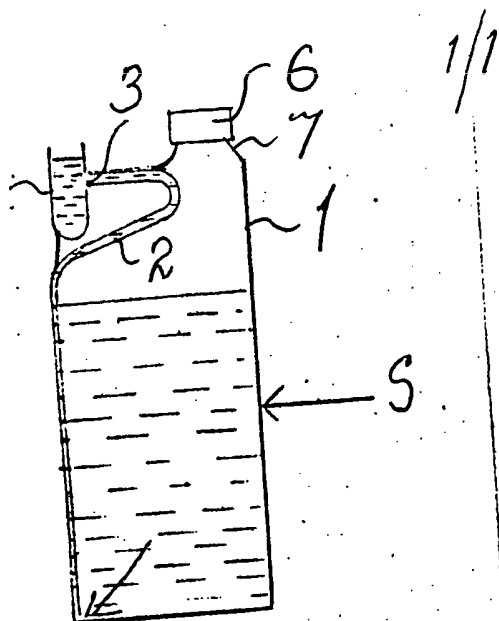


Fig. 1.

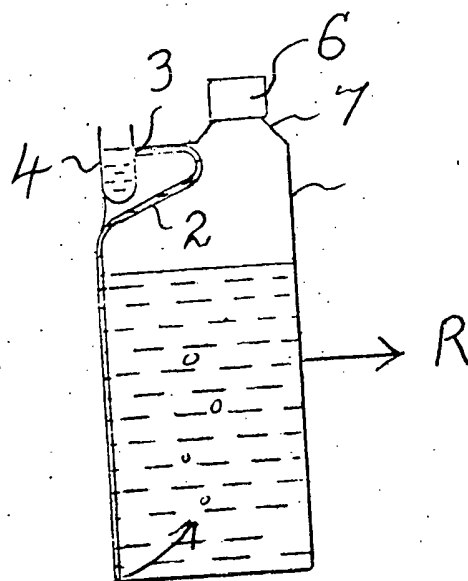


Fig. 2.

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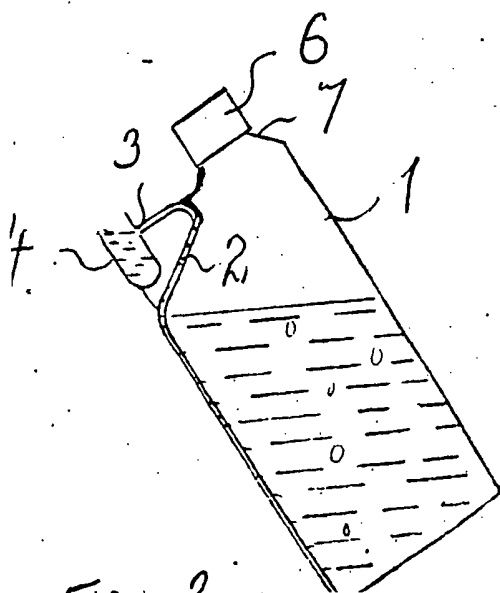
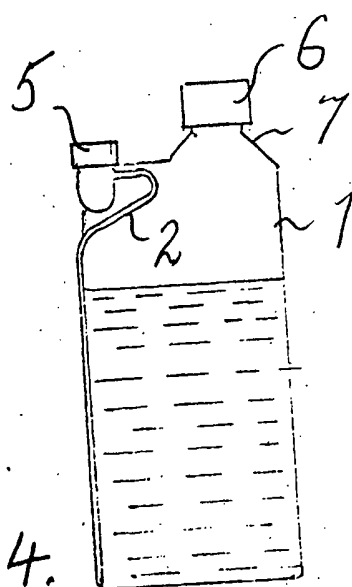


Fig. 4.



SPECIFICATION

Dispensing container

- 5 This invention relates to a dispensing container for liquids so as to facilitate repeated delivery from the container of a measured quantity of liquid.

The invention is particularly but not exclusively useful for dispensing relatively large doses, such as 10-30 millilitres, for use in veterinary treatment.

A container as provided by the invention has means for altering the effective volume of the container, preferably the container being a moulded bottle of resiliently deformable plastics material, a duct for liquid to be expressed from or sucked back into the container, as a result of container volume change, and a receptacle for liquid in which the duct terminates by a mouth at a level within the receptacle which determines the measure of liquid dispensed.

In a preferred construction a bottle is blow-moulded from plastics material and then pressed to form, between opposed and inter-welded wall portions, the duct leading from the base of the bottle to a mouth opening into a cup-shaped receptacle, moulded on the shoulder of the bottle, at a level below the rim of the cup.

By squeezing the bottle, liquid is expressed through the duct to flow into the receptacle until the mouth of the duct is seen to be immersed whereupon squeezing is stopped and the resilient recovery of the bottle sucks back liquid in the receptacle down to the level of the mouth of the duct.

An example of the invention is illustrated diagrammatically on the accompanying drawing, in which:-

Figures 1 to 4 are diagrammatic side elevations of a dispensing bottle in successive conditions of use.

A blow-moulded resiliently deformable plastics bottle 1 is formed, by thermal pressing and welding following moulding, with an integral duct 2 which by its lower end opens into the bottle near its base and by a mouth 3 at its upper end opens at an intermediate level into a cup 4 moulded on the shoulder of the bottle.

By squeezing the bottle, as indicated by the arrow S in Figure 1, the volume of the bottle is reduced so as to express liquid through the duct 2 into the cup 4 until it is seen that the duct mouth 3 is immersed (Figure 1).

On release from the squeezing, indicated by the arrow R in Figure 2, the bottle volume recovers and liquid is sucked back through the duct 2 until the liquid level in the cup 4 is reduced to the mouth 3 through which air and not liquid is then inspired (Figure 2).

The measured amount of liquid left in the cup 4 can then be poured out (Figure 3) for any required use.

As shown in Figure 4, the cup 4 can be closed by a cap 5 when not in use and the bottle has a closure cap 6 on a neck 7 through which it is filled.

Variations are possible, including:-

(a) The bottle may be sealed by thermal welding after filling, so that it is disposable.

bottle with the duct passing through the usual bottle mouth and neck.

(c) A cup and closure cap may be made in one, as a reversible component, the cup being provided by one end and the cap by the other end of the component, the duct passing through the cap part of the component and terminating by a mouth in the cup below the level of the cup rim.

75 CLAIMS

1. A liquid-dispensing container having means for altering the effective volume of the container, such as by the container being a moulded bottle of resiliently deformable plastics material, a duct for liquid to be expressed from or sucked back into the container, as a result of container volume change, and a receptacle for liquid in which the duct terminates by a mouth at a level within the receptacle which determines the measure of liquid dispensed.

2. A container according to Claim 1, in the form of a bottle moulded from plastics material incorporating, between opposed and inter-welded wall portions, the duct leading from the base of the bottle to a mouth opening into a cup-shaped receptacle, moulded on the shoulder of the bottle, at a level below the rim of the cup.

3. A liquid-dispensing container substantially as described.

4. A liquid-dispensing container as shown illustrated by the accompanying drawing and described with reference thereto.

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